

Figure B-1a. Continuous statewide habitat suitability index for *A. macrodactylum*.

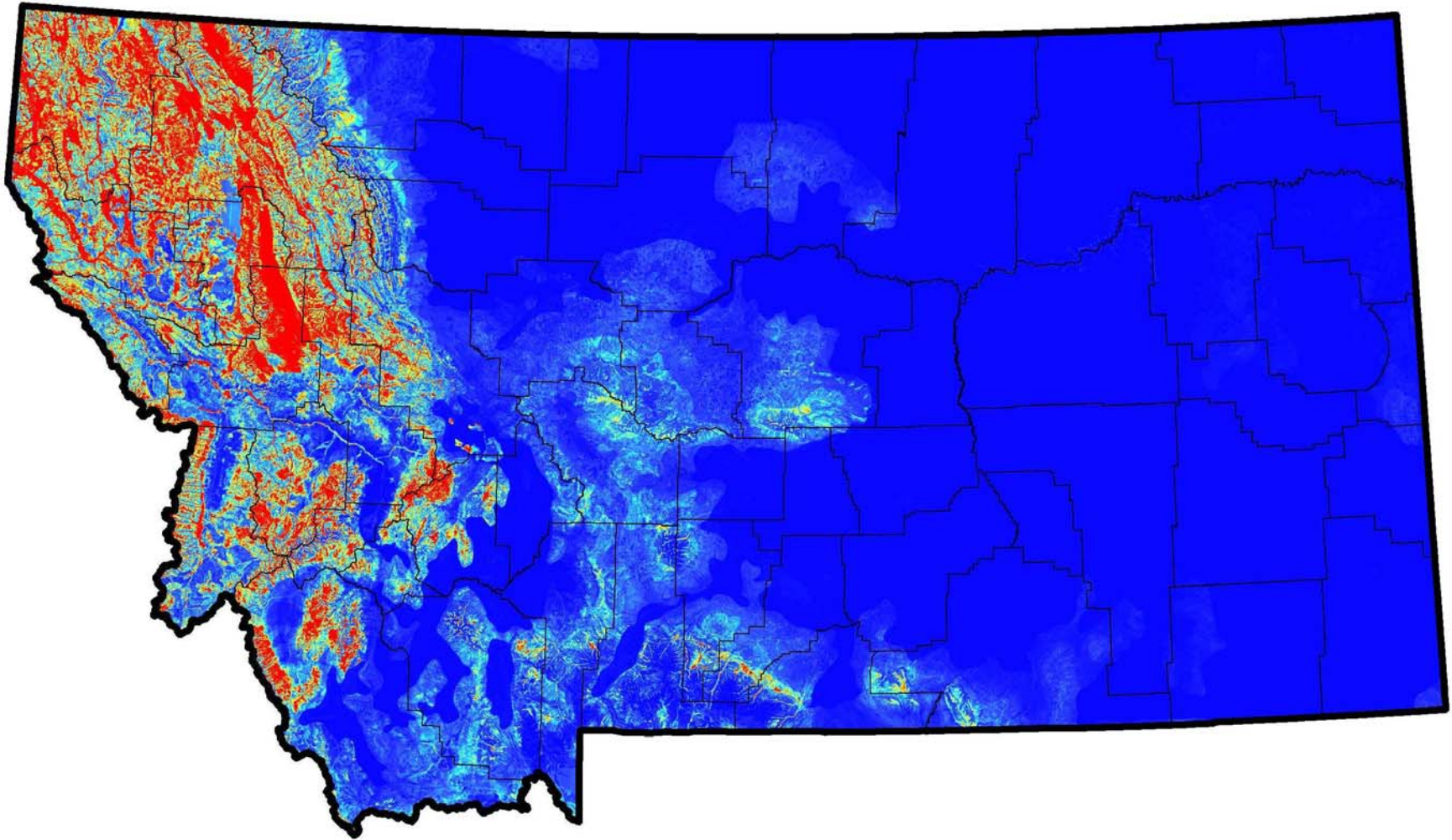


Figure B-1b. Predicted suitable habitat and training (squares) and test (stars) observations for *A. macrodactylum*.

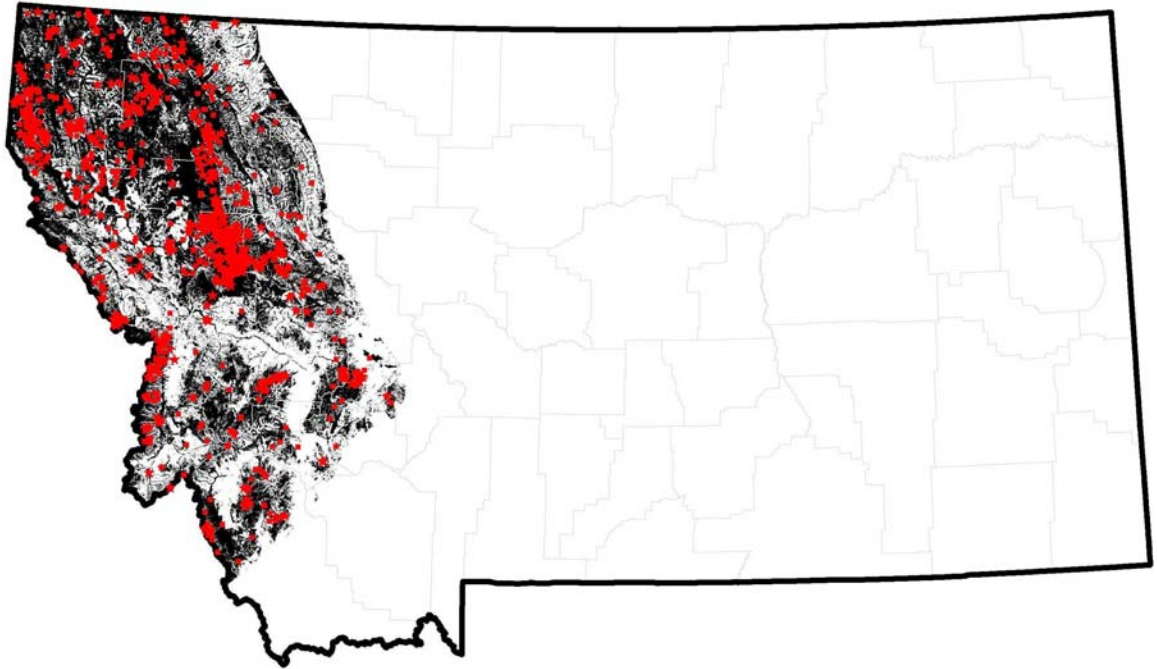


Figure B-1c. Predicted low (yellow), moderate (orange) and high (red) habitat suitability classes for *A. macrodactylum*.

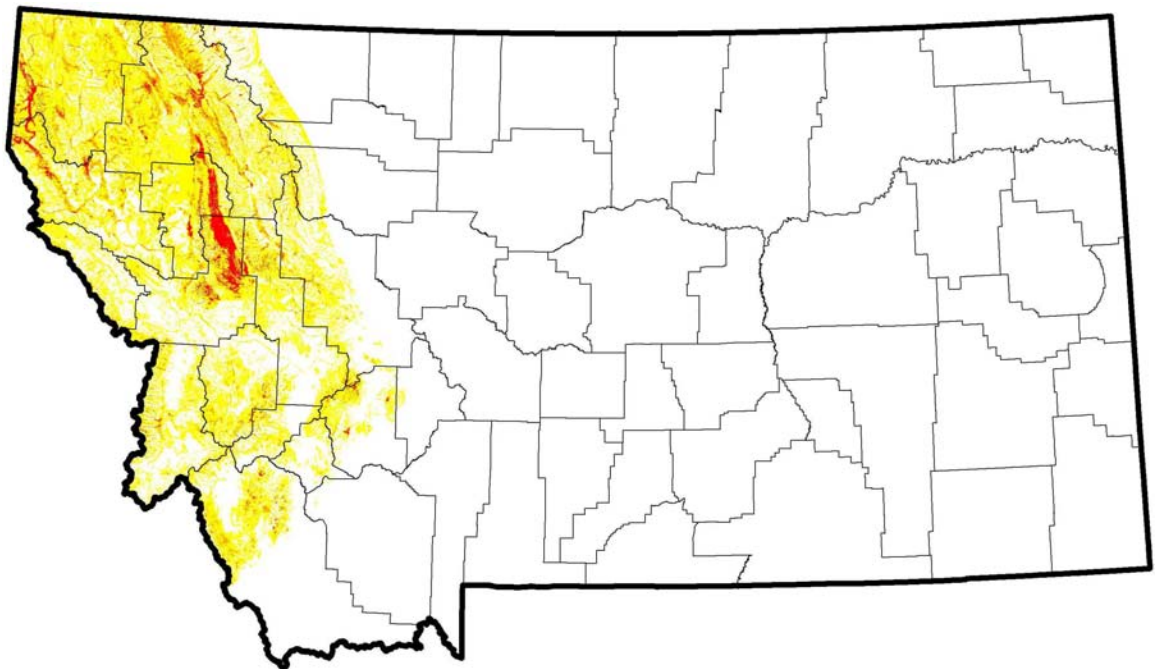




Figure 3. Habitat suitability class evaluation at the landscape scale using deviances of test occurrences. Test occurrence deviances for *R. luteiventris* are mapped with black circles sized relative to the magnitude of deviance of the underlying predicted logistic value from that predicted by the occurrence (i.e., a logistic value of 1). The region shown is centered on Glacier National Park with areas classified as unsuitable habitat showing as an aerial photograph for perspective, and habitats classified as low, moderate, and optimal suitability in yellow, orange, and red, respectively. Habitat suitability classifications perform well, with the magnitude of test occurrence deviances inversely correlated with predicted habitat suitability across the landscape. The two test occurrences with large deviances and white centers fell below the binary low cutoff threshold for suitable habitat (i.e. these represent omission errors in the low cutoff threshold binary model).

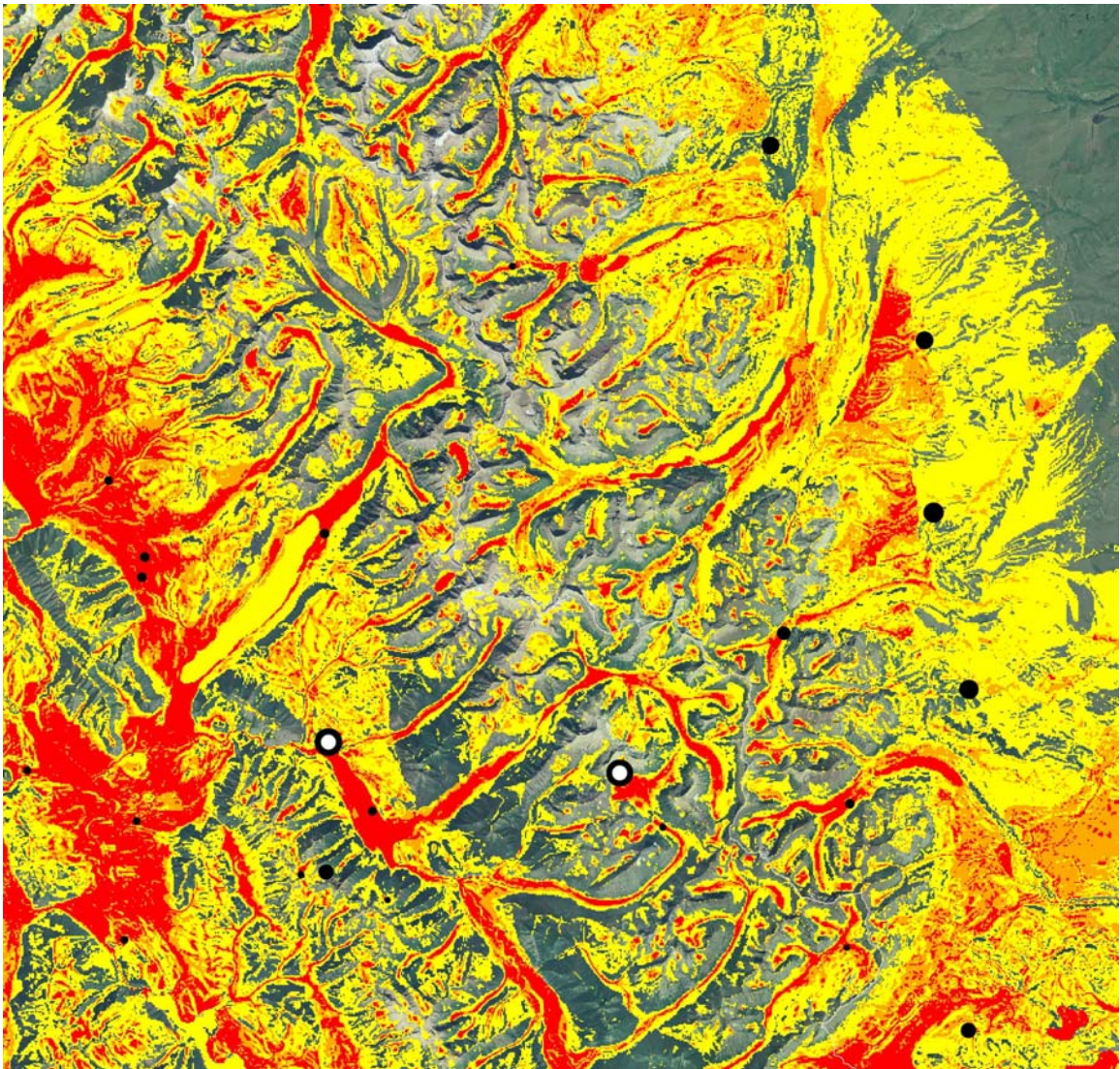




Figure 7. Example of using continuous logistic output at the scale of 90 x 90 m grid cells to represent predicted occupancy at the scale of Public Land Survey System (PLSS) sections for *R. luteiventris*. The upper portion of the image is centered on the Tobacco Root Mountains in southwestern Montana with areas classified as unsuitable habitat showing as an aerial photograph to provide perspective, and habitats classified as low, moderate, and optimal suitability in yellow, orange, and red, respectively. PLSS sections are shown as predicted to contain suitable habitat when the average logistic value for the approximately 320 grid cells contained by each section is greater than the low binary cutoff threshold for the continuous model. While this appears to be appropriate for protecting the species core habitats, it clearly misses narrow riparian corridors in valley bottoms that are critical for maintaining connectivity between core areas. Thus, appropriate thresholds are dependent on the species, administrative boundaries, and questions of interest.

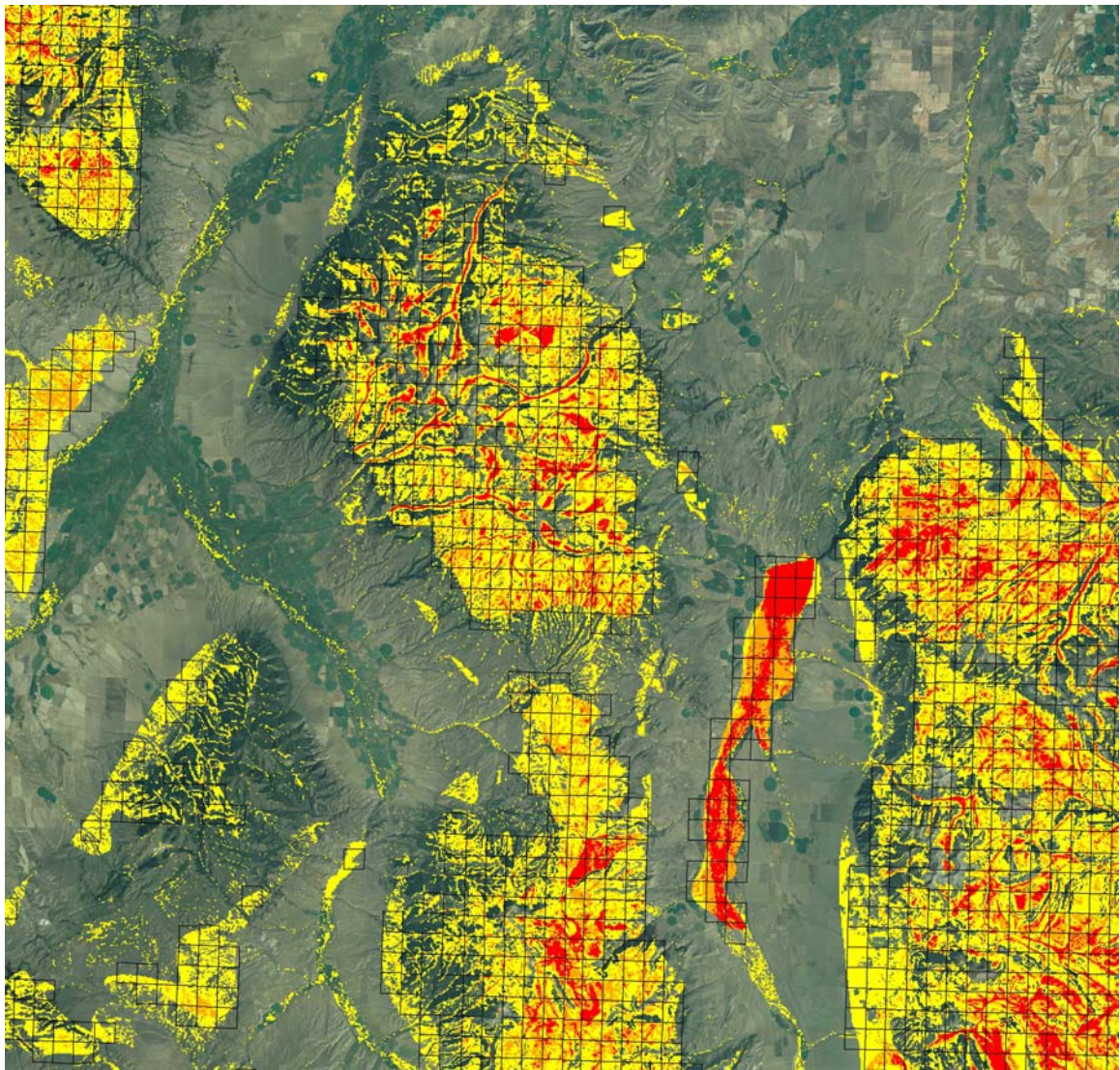




Figure 8. Overall predicted habitat suitability and species diversity for amphibians and reptiles in Glacier National Park. A National Agriculture Imagery Program (NAIP) color image (a) is included for reference to cumulative logistic output predicting areas of highest amphibian diversity (b), reptile diversity (c), and overall herpetofauna diversity (d). Hotter colors represent higher and cooler colors represent lower overall predicted habitat suitability.

